Cytokinetics Announces Initiation of Phase 1 Clinical Study of AMG 594, a Cardiac Troponin Activator

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Advancement of Second Novel Mechanism Cardiac Sarcomere Activator Reinforces Leadership Position in Muscle Directed Pharmacology

SOUTH SAN FRANCISCO, Calif., Feb. 20, 2019 (GLOBE NEWSWIRE) -- Cytokinetics, Incorporated (Nasdaq: CYTK) today announced that the first subject has been dosed in a Phase 1, randomized, double-blind, placebo-controlled, single and multiple ascending dose study to evaluate the safety, tolerability, pharmacokinetics and pharmacodynamics of AMG 594 in healthy subjects. AMG 594 is a cardiac troponin activator, discovered under a joint research program conducted between Amgen and Cytokinetics. The study is being conducted by Amgen in collaboration with Cytokinetics.

“The initiation of this Phase 1 study of AMG 594 further reflects the productivity of our collaboration with our partner, Amgen,” said Fady I. Malik, M.D., Ph.D., Cytokinetics’ Executive Vice President of Research & Development. “We are pleased that we are together advancing into the clinic another cardiac sarcomere activator, the first one selective for cardiac troponin, as it may provide differentiated effects as a potential treatment for various forms of heart failure and other conditions of reduced cardiac contractility.”

Phase 1 Clinical Trial Design

The primary objective of this Phase 1 randomized, double-blind, placebo-controlled, single and multiple ascending dose trial is to assess the safety and tolerability of AMG 594 when administered orally as single or multiple doses to healthy subjects. The study design includes several single ascending dose cohorts and three multiple ascending dose cohorts, with eight healthy subjects per cohort. Additional objectives include describing the pharmacokinetics of AMG 594 and its pharmacodynamic effects as measured by echocardiography.

About AMG 594

AMG 594 is a novel, selective, oral, small molecule cardiac troponin activator, discovered under our joint research program with Amgen. In preclinical models, AMG 594 increases myocardial contractility by binding to cardiac troponin through an allosteric mechanism that sensitizes the cardiac sarcomere to calcium, facilitating more actin-myosin cross bridge formation during each cardiac cycle thereby resulting in increased myocardial contractility. Similar to cardiac myosin activation, preclinical research has shown that cardiac troponin activation does not change the calcium transient of cardiac myocytes. Development of AMG 594 may include the evaluation of this novel mechanism of action as a potential treatment of patients with heart failure with reduced ejection fraction (HFrEF) and other types of heart failure, such as right ventricular failure, resulting from impaired cardiac contractility.

About Cytokinetics

Cytokinetics is a late-stage biopharmaceutical company focused on discovering, developing and commercializing first-in-class muscle activators and best-in-class muscle inhibitors as potential treatments for debilitating diseases in which muscle performance is compromised and/or declining. As a leader in muscle biology and the mechanics of muscle performance, the company is developing small molecule drug candidates specifically engineered to impact muscle function and contractility. Cytokinetics is collaborating with Amgen Inc. (Amgen) to develop *omecamtiv mecarbil*, a novel cardiac muscle activator. *Omecamtiv mecarbil* is the subject of GALACTIC-HF, an international Phase 3 clinical trial in patients with heart failure. Amgen holds an exclusive worldwide license to develop and commercialize *omecamtiv mecarbil* with a sublicense held by Servier for commercialization in Europe and certain other countries. Cytokinetics is also collaborating with Amgen to develop AMG 594, a cardiac troponin activator, discovered under the companies’ joint research program. Further development of AMG 594 is subject to the collaboration agreement between Amgen and Cytokinetics. Cytokinetics is collaborating with Astellas Pharma Inc. (Astellas) to develop *reldesemtiv*, a fast skeletal muscle troponin activator (FSTA). *Reldesemtiv* has been granted orphan drug designation by the FDA for the potential treatment of spinal muscular atrophy. *Reldesemtiv* was the subject of a Phase 2 clinical study in patients with spinal muscular atrophy which showed increases in measures of endurance and stamina consistent with the mechanism of action. *Reldesemtiv* is currently the subject of FORTITUDE-ALS, a Phase 2 clinical trial in patients with amyotrophic lateral sclerosis. Cytokinetics is also advancing CK-601, a next-generation FSTA, under the collaboration with Astellas. Astellas holds an exclusive worldwide license to develop and commercialize *reldesemtiv*. Licenses held by Amgen and Astellas are subject to specified co-development and co-commercialization rights of Cytokinetics. Cytokinetics is also developing CK-274, a novel cardiac myosin inhibitor that company scientists discovered independent of its collaborations, for the potential treatment of hypertrophic cardiomyopathies. Cytokinetics continues its over 20-year history of pioneering innovation in muscle biology and related pharmacology focused to diseases of muscle dysfunction and conditions of muscle weakness.

For additional information about Cytokinetics, visit www.cytokinetics.com and follow us on Twitter, LinkedIn, Facebook and YouTube.

Forward-Looking Statements

This press release contains forward-looking statements for purposes of the Private Securities Litigation Reform Act of 1995 (the “Act”). Cytokinetics disclaims any intent or obligation to update these forward-looking statements, and claims the protection of the Act's Safe Harbor for forward-looking statements. Examples of such statements include, but are not limited to, statements relating to the timing, design and results of Amgen’s Phase 1 clinical trial of AMG 594; the potential benefits of AMG 594; Cytokinetics’ and its partners’ research and development activities; the timing of enrollment of patients in Cytokinetics’ and its partners’ clinical trials; the design, timing, results, significance and utility of preclinical and clinical results; and the properties and potential benefits of Cytokinetics’ drug candidates. Such statements are based on management's current expectations, but actual results may differ materially due to various risks and uncertainties, including, but not limited to, potential difficulties or delays in the development, testing, regulatory approvals for trial commencement, progression or product sale or manufacturing, or production of Cytokinetics’ drug candidates that could slow or prevent clinical development or product approval; patient enrollment for or conduct of clinical trials may be difficult or delayed; Cytokinetics’ drug candidates may have adverse side effects or inadequate therapeutic efficacy; the FDA or foreign regulatory agencies may delay or limit Cytokinetics’ or its partners’ ability to conduct clinical trials; Cytokinetics may be unable to obtain or maintain patent or trade secret protection for its intellectual property; Cytokinetics’ partners decisions with respect to research and development activities; standards of care may change, rendering Cytokinetics’ drug candidates obsolete; competitive products or alternative therapies may be developed by others for the treatment of indications Cytokinetics’ drug candidates and potential drug candidates may target; and risks and uncertainties relating to the timing and receipt of payments from

its partners, including milestones and royalties on future potential product sales under Cytokinetics' collaboration agreements with such partners. For further information regarding these and other risks related to Cytokinetics' business, investors should consult Cytokinetics' filings with the Securities and Exchange Commission.

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